

ABSTRACT

5 The present invention relates to specific methods of producing cleated rubber-backed floor mats (such as dust control or rubber mats) through the utilization of the combination of a perforated coated woven fabric article and a cushioned platen liner between the article and the metal platen of an in-line dust control mat manufacturing machine. Such a procedure permits a more efficient manner of producing cleated anti-creep dust control mats than previously followed. In particular, the fabric article is in the form of a conveyor belt and is preferably constructed from Teflon®-coated woven fiberglass which will not adhere to the tacky rubber component of the target mat and can withstand the extremely high vulcanization temperatures and pressures required during the production of a dust control mat. The cushioned platen liner, which is preferably comprised of or coated with silicon, is utilized as a separator between the metal platen of the manufacturing machine, as well as cushion for the molten rubber as it is pressed through the conveyor belt perforations during vulcanization. Such a cushioned liner material substantially eliminates any problems due to the force of the metal platen against the molten rubber as it passes through the article perforations. Further, a method for utilizing the conveyor belt to produce foam rubber cleated anti-creep mats is disclosed. The cleats of these mats have a thicker skin than the rest of the mat, thereby imparting enough strength and structural integrity so that the foam rubber mats may withstand the daily rigors of use, combined with periodic launderings. The produced mat as well as the woven fabric article/cushioned platen liner combination are also encompassed within this invention.